converted into an estimate of the number of HIV infections averted by the intervention. For each averted infection replicate, the corresponding savings in future HIV-related medical care costs and quality-adjusted life years (QALYs) were estimated. This sampling process was repeated 5000 times to yield a distribution of the INHB describing the full post-data uncertainty. **RESULTS:** We obtained a positive mean INHB, 0.0008 (close to zero), indicating that advocacy training is just slightly favored over the comparison condition for men, assuming a $50,000 per QALY threshold. We also displayed the acceptability curve: to be somewhat confident of the cost-effectiveness of advocacy training over the comparison condition, say at 0.7 probability, one should be willing to spend over $100,000 per QALY. **CONCLUSIONS:** The Bayesian framework provides a powerful tool to the economist who intends to advise policy makers by allowing the question—whether an intervention is cost-effective—to be addressed directly.

IN2

COST-EFFECTIVENESS (CE) OF SCREENING DONATED BLOOD WITH MINIPOOL NUCLEIC ACID TESTING (NAT) FOR HEPATITIS B VIRUS (HBV), HEPATITIS C VIRUS (HCV), AND HUMAN IMMUNODEFICIENCY VIRUS (HIV)

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OBJECTIVE: To examine the CE of adding minipool NAT to current blood screening (CS) of volunteer blood donations to reduce the risk of HBV, HCV and HIV infection in the United States. **METHODS:** We developed a decision analytic model of screening volunteer blood donations in the US based on recently published Markov models of HBV, HCV, and HIV infection to estimate discounted lifetime costs and quality-adjusted life year (QALY) gains. Infection risk (including prevalence and the window period between antigen and antibody detectability in the donated blood), and test sensitivities were derived from the literature. Age-specific 10-year survival of transfusion recipients was from Vamvakas (1994) and the age distribution from a private managed care database for transfusions in 1995. Secondary analyses considered alternative screening strategies. **RESULTS:** The model estimated NAT would annually prevent 37, 128 and 7 transfusion-acquired cases of HBV, HCV, and HIV respectively compared to CS alone (6.2 million transfusion recipients). HCV had the greatest impact on total QALYs and costs. Although the cost per case of HIV avoided was 3–4 times that for HBV or HCV, the overall impact of HIV on CE was small. Adding NAT to CS would add 86 life years, at an incremental cost per life year gained of $2.1 M and an incremental cost per QALY gained of $1.2 M. The CS + NAT-p24 strategy dominated CS + NAT, and had an incremental cost per QALY of $0.9 M compared to CS. Results were most sensitive to disease incidence rates, screening test costs, estimates of window period closure, and the age distribution of transfusion recipients. **CONCLUSIONS:** The CE of adding NAT to current screening, although not within a range considered cost-effective for health care treatments, may be reasonable when considered in the context of other blood-related preventive interventions such as autologous blood donation, and the desire for a zero tolerance level for infections from blood transfusions.

IN3

METHODS FOR ASSESSING COSTS AND EFFECTS OF ANTIRETROVIRAL THERAPIES IN HIV: THE IMPACT OF USING AN EXTENDED STUDY PERIOD

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OBJECTIVES: The use of antiretroviral therapy has enormous success in slowing down disease progression in HIV/AIDS. Combinations of therapeutics have resulted in declining rates for opportunistic infections and mortality. The high costs of these medications have prompted questions about their cost-effectiveness. Most studies estimating cost-effectiveness of combination antiretroviral therapy (HAART) use data from a short period of time. Data is often collected during six months. In this study, the impact of using an extended study period of two years to assess the long-term effects of HAART is investigated. **METHODS:** To estimate the impact of a longer period of data collecting, data from the HIV-database from the University Hospital of Groningen were used. This database contains data on among others hospital admission data, opportunistic infections and serologic markers of over 300 patients since 1996. A Markov transition model for disease progression was developed. Using data from a 2-year period, the Markov transition probabilities and the final Markov reward was calculated. This was compared with an analysis in which data from a 6-month period were used. **RESULTS:** When compared with progression rates based on 6-month data, smaller progression rates were found when the model was based on a 2-year data. The use of a 2-year data period for Markov modelling was associated with better health outcomes than with a model based on 6-month data. Since the modelling of outcomes is closely associated with costs, a decline in costs was also seen. Overall, the cost-effectiveness of HAART was more favourable when the model was based on data from a 2-year period. **CONCLUSIONS:** The use of an extended study period for modelling the long-term effect of HAART leads to significantly different results. It is likely that the use of a relatively